Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for extracting a Zernike/Pseudo-Zernike moment for an input image, comprising ~~the steps of~~:

generating a Zernike/Pseudo-Zernike moment basis function in a predetermined quadrant on plane Cartesian coordinates;

obtaining a pixel value of the input image by projecting the input image onto the quadrant; and

multiplying each pixel value of the input image by the moment basis function corresponding to the pixel position and then summing the results thereof.

2. (Currently Amended) The method according to claim 1, wherein ~~the step of~~ generating ~~a~~ the moment basis function comprises ~~the steps of~~:

obtaining a moment radial polynomial according to ~~the~~ a change in order and repetition and checking if the repetition is an even number;

generating the Zernike/Pseudo-Zernike moment basis function in the quadrant by using ~~the~~ a symmetry of a linear function passing the origin and having an absolute value of its slope of 1, if the repetition is an even number; and

generating the Zernike/Pseudo-Zernike moment basis function in the quadrant without using the symmetry ~~as in the above step~~, if the repetition is an odd number.

3. (Currently Amended) The method according to claim 1, wherein ~~the step of~~ obtaining ~~a~~ the pixel value of the input image comprises ~~the steps of~~:

adjusting the input image to ~~the~~ a size of the Zernike/Pseudo-Zernike moment basis function; and

obtaining the pixel value of the input image by projecting the input image of which the size is adjusted onto the quadrant by using x-axis symmetry, y-axis symmetry, and origin symmetry.

4. (Original) The method according to claim 1, wherein the predetermined quadrant is a first quadrant.

5. (Currently Amended) The method according to claim 2, wherein the linear function passes the origin and has a slope of +1 ~~(i.e., y=x)~~.

6. (Currently Amended) A method for extracting a Zernike/Pseudo-Zernike moment for an input image, comprising ~~the steps of~~:

generating a Zernike/Pseudo-Zernike moment basis function in a predetermined quadrant on [[a]] plane orthogonal coordinates;

generating a Zernike/Pseudo-Zernike moment for all quadrants from the ~~a~~ Zernike/Pseudo-Zernike moment basis function on the quadrant by ~~the~~ a symmetry of a Zernike/Pseudo-Zernike moment;

obtaining a pixel value of the input image; and

multiplying each pixel value of the input image with the moment basis function corresponding to the pixel position and then summing the results thereof.

7. (Currently Amended) The method according to claim 6, wherein ~~the step of~~ generating ~~a~~ the moment basis function comprises ~~the steps of~~:

obtaining a moment radial polynomial according to ~~the~~ a change in order and repetition and checking if the repetition is an even number;

generating the Zernike/Pseudo-Zernike moment basis function in the quadrant by using ~~the~~ a symmetry of a linear function passing the origin and having an absolute value of its slope of 1, if the repetition is an even number; and

generating the Zernike/Pseudo-Zernike moment basis function in the quadrant without using the symmetry ~~as in the above step~~, if the repetition is an odd number.

8. (Previously Presented) The method according to claim 6, wherein the symmetry of the Zernike/Pseudo-Zernike moment basis function is the symmetry of x-axis, y-axis, and origin.

9. (Currently Amended) A computer readable recording medium on which a program implementing the same method is recorded, comprising ~~the functions of~~:

generating a Zernike/Pseudo-Zernike moment basis function of an input image in a predetermined quadrant on [[a]] plane orthogonal coordinates in an image recognition system having a processor in order to extract a Zernike/Pseudo-Zernike moment;

obtaining a pixel value of the input image by projecting the input image onto the quadrant; and

multiplying each pixel value of the input image with the moment basis function corresponding to the pixel position and then summing the results thereof.

10. (Currently Amended) A computer readable recording medium on which a

program implementing the same method is recorded, comprising ~~the functions of~~:

generating a Zernike/Pseudo-Zernike moment basis function of an input image in a predetermined quadrant on [[a]] plane orthogonal coordinates in an image recognition system having a processor in order to extract a Zernike/Pseudo-Zernike moment;

generating a Zernike/Pseudo-Zernike moment for all quadrants from the ~~a~~ Zernike/Pseudo-Zernike moment basis function on the quadrant by using ~~the~~ a symmetry of a Zernike/Pseudo-Zernike moment;

obtaining a pixel value of the input image; and

multiplying each pixel value of the input image with the moment basis function corresponding to the pixel position and then summing the results thereof.

11. (New) A method for extracting a Zernike/Pseudo-Zernike moment for an input image, comprising:

generating a Zernike/Pseudo-Zernike moment basis function in a predetermined quadrant on plane Cartesian coordinates by obtaining a moment radial polynomial according to a change in order and repetition and checking if the repetition is an even number, generating the Zernike/Pseudo-Zernike moment basis function in the quadrant by using a symmetry of a linear function passing the origin and having an absolute

value of its slope of 1, if the repetition is an even number, and generating the Zernike/Pseudo-Zernike moment basis function in the quadrant without using the symmetry, if the repetition is an odd number.

12. (New) The method according to claim 11, further comprising:

obtaining a pixel value of the input image by projecting the input image onto the quadrant; and

multiplying each pixel value of the input image by the moment basis function corresponding to the pixel position and then summing the results thereof.

13. (New) The method according to claim 11, wherein obtaining the pixel value of the input image comprises:

adjusting the input image to a size of the Zernike/Pseudo-Zernike moment basis function; and

obtaining the pixel value of the input image by projecting the input image of which the size is adjusted onto the quadrant by using x-axis symmetry, y-axis symmetry, and origin symmetry.

14. (New) The method according to claim 11, wherein the predetermined

quadrant is a first quadrant.

15. (New) The method according to claim 12, wherein the linear function passes the origin and has a slope of +1.